Customer No.: 31561
Application No.: 10/711,380
Docket No.: 13464-US-PA

REMARKS

Present Status of the Application

The Office Action indicated that the title of the invention is not description. The Office Action rejected all presently-pending claims 1-16. Specifically, the Office Action rejected claims 1, 3, 4, 16 under 35 U.S.C. 102(b), as being anticipated by Jelinek et al. (US Patent 5,331,295). The Office Action also rejected claims 2, 5-15 under 35 U.S.C. 103(a) as being unpatentable over Jelinek et al. (US Patent 5,331,295) in view of Klughart (US Patent 5,798,669). The Applicant hereby respectfully requests further examination and reconsideration of those claims.

Discussion of Title

In the previous response to the Office Action dated Nov. 23, 2005, Applicants have amended the title as "VOLTAGE CONTROLLED OSCILLATOR WITH TEMPERATURE AND PROCESS COMPENSATION". In the Office Action, it is not indicated that the amendment is entered or not for record. However, Applicants believe that the Title is clearly indicative of the invention to which the claims are directed. More particularly, the invention is related to an voltage control oscillator, which resists process fluctuation and temperature variance to the VCO, and reduces fabrication cost (Summary of the Invention). It is respectfully requested for reconsideration of the amendment to the Title.

Discussion of Office Action Rejections

The Office Action rejected claims 1, 3, 4, 16 under 35 U.S.C. 102(b), as being anticipated by Jelinek et al., US Patent 5,331,295. Applicants respectfully traverse the rejections for at least the reasons set forth below.

The features are recited in claims 1. For example, independent claim 1 recited the features.

With respect to claim 1, independent claim 1 recites the features as follows:

> 1.A voltage control oscillator, for outputting a clock signal with a frequency according to an input voltage, comprising:
> ***a constant current source, for providing a reference current***;
> ***a voltage/ current converter,*** *coupled to the constant current source,* ***for determining a first current passing through the voltage/ current converter according to the input voltage***;
> ***a current mirror***, having ***a first current terminal and a second current terminal***, the first current terminal being coupled to the constant current source, for ***determining a third current passing through the second current terminal according to the second current passing through the first current terminal, wherein the second current is the reference current subtracted by the first current***; and
> an oscillating circuit, coupled to the second current terminal of the current mirror, for determining the frequency of the outputted clock signal according to the third current. (Emphasis Added)

Applicant emphasizes that the present invention is directed to a voltage control oscillator. The voltage control oscillator, as shown in FIG 2A, the oscillating circuit 230 is coupled to the second current terminal of the current mirror CM, for determining a frequency of the clocking signal CLK according to the third current *IC*. By such arrangement that third current *IC* is determined according to the second current *IB*, which is the reference current *I* subtracted by the first current *IA*, the third current *IC* and the first current *IA* caries inversely to each other, which make the VCO of the invention capable of compensating temperature

variation and fabrication process fluctuation. That is, in the invention, **for providing a VCO which is capable of compensating temperature variation and fabrication process fluctuation, the reference current I is predetermined to be constant and the sum of the first current IA and the second current IB.**

Applicant agrees with the Office Action that the current source 12 of Jelinek's FIG. 1 is a constant current source. However, Applicant does not agree that the disclosures of FIG.1 of the Jelinek reference have anticipated that "a constant current source, for providing a reference current,..... ***wherein the second current is the reference current subtracted by the first current***" as claimed in claim 1. Instead, in the Jelinek reference, the reference current means the current for the attenuator 16 (the sum of the first split current passing through left transistor of 16 and **the second split current** passing through right transistors of 16) and is obtained by **subtracting the *variable* second current provided by the second current source 14 from the constant first current provided by the first current source 12.** Thereof, Jelinek et al. does not anticipate that "a constant current source, for providing a reference current..... ***wherein the second current is the reference current subtracted by the first current***" as claimed in claim 1.

In addition, the Office Action asserted that "the difference between Attenuator 16 and V-I converter 220 of this application has no bearing on the scope of the claim." However, in the previous argument, Applicant emphasized that "**the second split current** passing through right transistors of 16 is obtained by ***comparing the input voltage Vfilter 20 to the reference voltage Vref***", which is different from the invention that "***a voltage/ current converter, coupled to the constant current source,*** for determining a first current passing through the

voltage/ current converter ***according to the input voltage***" as claimed in claim 1. The argument is bearing on the scope of the claim.

Applicant reemphasizes that the structure shown in Fig. 1 recited by Jelinek et al. falls short of disclosing, teaching, or even suggesting any features above-mentioned and is significantly different from that of the present invention.

For at least the foregoing reasons, Applicant respectfully submits that independent claims 1 patently defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 3, 4 and 16 patently define over the prior art as well.

Rejection under 35 U.S.C. 103(a)

The Office Action also rejected claims 2, 5-15 under 35 U.S.C. 103(a) as being unpatentable over Jelinek et al. in view of Klughart, US Patent 5,798,669. Applicants respectfully traverse the rejections for at least the reasons set forth below.

It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all features of the claims at issue. In view of the reasons set forth above, Jelinek et al. does not disclose, teach, or suggest all features of claim 1 and the Klughart reference dose not remedy the deficiency. Consequently, the combination of Jelinek et al. in view of the Klughart reference does not render claims 2-15 obvious, and the rejection should be withdrawn.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-16 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

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